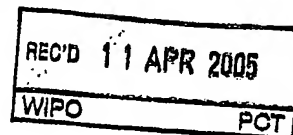


Rec'd PCT/PTO 01 APR 2005

PATENT COOPERATION TREATY

PCT



INTERNATIONAL PRELIMINARY EXAMINATION REPORT

10/530215

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference PCT 21239Y		FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/US03/31287	International filing date (day/month/year) 03 October 2003 (03.10.2003)	Priority date (day/month/year) 07 October 2002 (07.10.2002)	
International Patent Classification (IPC) or national classification and IPC IPC(7): C07D 487/04; A61K 31/4985; A61P 9/10, 21/08, 3/10, 3/12, 25/02 and US Cl.: 544/350; 514/249			
Applicant MERCK & CO., INC.			
<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>7</u> sheets, including this cover sheet.</p> <p><input type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of <u> </u> sheets.</p>			
<p>3. This report contains indications relating to the following items:</p> <p>I <input checked="" type="checkbox"/> Basis of the report</p> <p>II <input type="checkbox"/> Priority</p> <p>III <input type="checkbox"/> Non-establishment of report with regard to novelty, inventive step and industrial applicability</p> <p>IV <input checked="" type="checkbox"/> Lack of unity of invention</p> <p>V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p>VI <input type="checkbox"/> Certain documents cited</p> <p>VII <input type="checkbox"/> Certain defects in the international application</p> <p>VIII <input checked="" type="checkbox"/> Certain observations on the international application</p>			
Date of submission of the demand 05 May 2004 (05.05.2004)		Date of completion of this report 01 April 2005 (01.04.2005)	
Name and mailing address of the IPEA/US Mail Stop PCT, Attn: IPEA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230		Authorized officer <i>Valerie Boel-Hanssen</i> Mark L. Berch Telephone No. 571-272-1600	

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/US03/31287

I. Basis of the report

1. With regard to the elements of the international application:*

- ☒ the international application as originally filed.
- ☒ the description:
pages 1-69 as originally filed
pages NONE, filed with the demand
pages NONE, filed with the letter of _____.
- ☒ the claims:
pages 70-85, as originally filed
pages NONE, as amended (together with any statement) under Article 19
pages NONE, filed with the demand
pages NONE, filed with the letter of _____.
- ☐ the drawings:
pages NONE, as originally filed
pages NONE, filed with the demand
pages NONE, filed with the letter of _____.
- ☐ the sequence listing part of the description:
pages NONE, as originally filed
pages NONE, filed with the demand
pages NONE, filed with the letter of _____.

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in printed form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☒ The amendments have resulted in the cancellation of:

- ☒ the description, pages None
- ☒ the claims, Nos. None
- ☒ the drawings, sheets/~~fig~~ None

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US03/31287

IV. Lack of unity of invention

1. In response to the invitation to restrict or pay additional fees the applicant has:

- ☐ restricted the claims.
☒ paid additional fees.
☐ paid additional fees under protest.
☐ neither restricted nor paid additional fees.

2. ☐ This Authority found that the requirement of unity of invention is not complied with and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees.

3. This Authority considers that the requirement of unity of invention is accordance with Rules 13.1, 13.2 and 13.3 is

- ☐ complied with.
☐ not complied with for the following reasons:

4. Consequently, the following parts of the international application were the subject of international preliminary examination in establishing this report:

- ☒ all parts.
☐ the parts relating to claims Nos. _____

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/US03/31287

V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. STATEMENT

Novelty (N)	Claims <u>1-34</u>	YES
	Claims <u>NONE</u>	NO
Inventive Step (IS)	Claims <u>1-34</u>	YES
	Claims <u>NONE</u>	NO
Industrial Applicability (IA)	Claims <u>1-34</u>	YES
	Claims <u>NONE</u>	NO

2. CITATIONS AND EXPLANATIONS

Claims 1-34 meet the criteria set out in PCT Article 33(2)-(3), because the prior art does not teach or fairly suggest the particular side chain present.

Claims 1-34 meet the criteria set out in PCT Article 33(4), and thus have industrial applicability because the subject matter claimed can be made or used in industry.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US03/31287

VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the questions whether the claims are fully supported by the description, are made:

Please See Continuation Sheet

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/US03/31287

Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

VIII. The following observations on the clarity of the claims, description, and drawings or on the questions, are made:

Claims 1-21, 33-34 are objected to under PCT Rule 66.2(a)(v) as lacking clarity under PCT Article 6 because claims 1-21, 33-34 are indefinite for the following reason(s):

The term "alkyl" has been rendered indefinite by the specification which indicates on page 14, line 8, that the term include cyclic structures. By its definition, alkyl is a group of the formula $-C_nH_{2n+1}$, as is set forth in such sources as Hack's Chemical Dictionary and Hawley's Condensed Chemical Dictionary, or any textbook of organic chemistry. As such it cannot have rings. The term "Diabetes" in claim 26 and 34 is ambiguous. It is not a complete term. Diabetes insipidus for example is caused by the inability of the kidneys to conserve water, which is caused by a lack of ADH (central diabetes insipidus) or by failure of the kidneys to respond to ADH (nephrogenic diabetes insipidus). Applicants must select some specific form(s) of diabetes (e.g. Type 2 diabetes mellitus, or Gestational diabetes mellitus; these are metabolic disorders) and they must use that term, and show that one of ordinary skill in the art would have been able to determine that whatever term(s) is/are selected was the one(s) intended. The 5th choice for R8 is claim 23 is unclear. The "cPr" is not a standard abbreviation.

The scope of claim 25 is unclear. There is no way to be certain exact who is not covered by this claim language. The "such as" in claim 32 renders the claim indefinite, since is not clear what role the material after the "such as" has in limiting the claim language.

Likewise for the "including" in (15) of claim 31.

The scope of "other disorders" in third from last line of claim 31 is unknown; not all such disorders have been identified. The overlapping terms in claim 30 make the scope unclear. Dyslipidemias are any disorders of lipoprotein metabolism, including lipoprotein overproduction or deficiency. Thus, it would cover every thing else in the claim, unless some more specialized definition were being used. Thus, it is unclear why the rest of the claim is present. Likewise, the 2nd terms covers the 3rd, 4th and 6th.

Claims 30 and 31 are objected to as lacking clarity under PCT Rule 66.2(a)(v) because of the claims 30 and 31 not fully supported by the description. The description does not disclose the claimed invention in a manner sufficiently clear and complete for the claimed invention to be carried out by a person skilled in the art because some of these scope cannot possibly be deemed enabled. Specifically

A. Dyslipidemias are any disorders of lipoprotein metabolism, including lipoprotein overproduction or deficiency. Thus, this covers opposite problems, e.g. too much

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/US03/31287

Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

and too little triglycerides.

- B. The term "lipid disorders" since it would cover not only production problems but distribution problems, as well as the body's manufacture of malformed lipid proteins, etc.
- C. Vascular restinosis would cover the narrowing of any canal, valve, duct, artery, vein, etc. in the body. These can arise from obstructive lesions, deposits of granulations, organ hypertrophy, etc. There is no such thing as being able to treat such widely diverse problems which arise from different sources.
- D. "Other inflammatory conditions" covers a vast range of inflammations, which come from a variety of problems and involve many different mediators.
- E. Similarly, retinopathy, nephropathy, and neuropathy covers all diseases of the eye, kidney and nerves, an neurodegenerative disorders covers a vast array of largely unrelated disorders, many of unknown origin. Support of such claim language cannot possibly be deemed as present.